1: Hanke--3 O-5 (ca. 1955) 1956 SM4 Guarani SM4

II. Material Culture.

178 The Caiuás who have remained within their tribal organization have preserved more of their material culture than have those living dispersed.

128 I shall give here a brief survey of this culture in comparison with the material culture of the Caingua tribes in Paraguay (6):

[113] 6. Cf. "Dos años entre los indios Caingua /Two Years Among the Caingua Indians/." In preparation for publication. University of Madrid.

411 The bows and arrows of the Caiuás are somewhat shorter and finer. There are several differences in their baskets. The
285 carrying baskets (boná) characteristic of the Paraguay Indians, which are artistically decorated with interwoven designs, are missing. They are replaced by simple, completely unadorned carrying baskets that lack the rear wall, which is marked only by crossed belts made from the bark of a liana root. In general,
534 the basketry is simple and crude. -- The signal pipes are interesting; they are carved of wood, sometimes round, sometimes oval or conical; I once saw a double pipe that resembled two egg cups placed side by side.

793 Of great importance even today are the objects used in
292 connection with ceremonies. One of them is the poncho of the
237 priest of magic, trimmed with small tufts of feathers and the down of the toucan (pepper bird), ending at the bottom in fringe.
[301] The poncho is woven of cotton. Over it, crossed on the chest, cotton belts with feather ornaments or numerous chains of seeds are usually worn. The head is adorned with a feather diadem consisting chiefly of toucan feathers, from the back of which hang long strings full of tufts of feathers. Sometimes jaguar claws are fastened with them. Around the wrists the priest wears
[304] feather bracelets, and in the pierced lower lip the lip-plug of
301 resin, called tembetá. -- While the Tembecuá attach no special
[824] value to whether or not the lip-plug is made of resin, the Caiuás regard this as essential.

/53 cont./

263 Many vegetable species are occasionally used in Kayová cooking, such as, for example, a native and uncultivated cará (which is not the cará-do-ar), with a very large bulb.

224 Hunting and capturing animals are part of the Guaraní's daily activities. I have had the opportunity to observe their importance particularly among the Mbüá of Rio Branco. /54/ Every morning a good part of the men leave home, going into the forest "in order to look at the traps." Each man has four, five, or more traps of snares and sticks /Port. jicara/ in the forest. With snares of flexible branches, pigs, deer, antas, etc. are caught "by the hand" (i.e., by the front leg). The snares for antas are of very thick ropes. To catch macucas and other birds, small snares, ño ĩ, which hold the bird by the leg, are prepared.

223

224 411 172 [192] [178] Since the gun (mboká) has become known -- which, by the way, few possess -- the use of arrows, including the guyrá piá (an arrow for birds; blunt in order not to get caught in the trees), is becoming more and more rare. As a consequence of the cultural contacts, it is noted that the technique of making bows and arrows, although continuing to have great economic utility for these Mbüá, has ceased to be bound up with hunting in order to assume commercial interest, because there are always buyers interested in native weapons, even though made without care. The hunter, [825] however, goes armed with his gun and, having reached the forest, imitates, by whistles, the voices of the macuca, the jacu, the monkey. To call macucas, incidentally, a whistle of industrial origin, "flute to entice macuca" is used. One can see that the acculturative process has fully struck the most genuinely native economic preoccupations. But since there are few individuals [182] [422] who possess guns, it is obvious that this aspect of economic acculturation is equivalent, in a certain sense, to a cultural disintegration, creating needs without giving the means to satisfy them.

/68 cont./

857 155 This in part explains the fact that there is almost no Guaraní childish culture. There are few games that are not reduced to an imitation of the adults' activities. The Mbüá boy already at the age of three begins to practice the handling of the bow and arrow (1);

524 • 411 1. /The notes for Ch. V appear on p. 84 in the original source./ Some bows and arrows of childish type, acquired among the Mbüá of Rio Branco and given to the Cadeira de Psicologia Educacional /Chair of Educational Psychology/ (Universidad de São Paulo), are half as long as the weapons of the adults, being made of the same material. The bows, of biconvex cut, are strung with embira and adorned with plaiting of mbopará type (taquara /a very strong cane/ and imbé) in traditional patterns; the arrows, with points of monkey bone (káiguasú) or of brejaúba, the black wood out of which the arrow of the adults is also made, are not provided with barbs, but display the common feathering. -- In the coastal villages, these childish weapons underwent a functional change, no longer being made today for the training of the new generation, but for commerce; many purchasers (tourists) preferring them because of the greater ease of transport.

[178] [439]

857 155 he also constructs his little traps of bamboo /Port. jiçara/ early. Among the Mbüá of Palmeirinha, I saw children play at being hunter and game, the game finally caught in the noose. The Mbüá of Rio Branco have adopted a game of cards, bisca /a game of cards played in Portugal/; men and small boys take part in it indiscriminantly.

[524]

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

the immense Rio Paraná some distance above its spectacular plunge over the great escarpment at Sete Quedas.

According to the meager data available on the topography of the region, the Cayuá of Mato Grosso live on plains and hilly uplands, varying between some 1,000 to 1,500 feet above sea level. The climate is not often disagreeable, even for the newcomer, and has stimulating features.[30] It is characterized by a wet and a dry season. The dry season comes in the winter months, and its height is about July. For a few days during these months, although it does not snow (for lack of moisture), it is often bitterly cold, especially for the type of habitation and clothing common in the area to Indian and white alike. Occasionally in the morning the ground is covered with hoar frost. At the height of the rainy season, in December and January, the rain sometimes falls so fast that it is not readily soaked up by the ground; ponds are quickly formed in the low places, and roaring streams overflow their banks. Water holes and bogs appear during the rainy months where only dried mud was before. The frogs and other life forms seem to burst forth simultaneously. This is the growing season for the Cayuá planter.

The more general aspects of the flora of the region have been mentioned above in speaking of the three broad types of plant cover. The many varieties of trees to be found in their environment are the most important wild flora for the Cayuá. There are woods of extreme hardness for arrow points, flexible woods for bows, straight canes for arrow shafts,[31] *maté* trees, which the Cayuá also now use on a small scale, and many types of lianas and plants with strong, fibrous cortices for tieing, especially used in building houses and fences. The *caraguatá* cactus provides a good fiber for cordage and for certain textiles. There are numerous bushes and trees bearing wild fruits, and not to be overlooked is the *taquára*—strictly *taquarussú*—a large bamboo with long, stout, straight trunks which serve the Cayuá admirably for many purposes including construction of houses, though never for fuel. The *pindó* palm provides leaves for cover, fibers for lines, and fruit, and its heart is, or was formerly, used to make an edible pounded meal.

The fauna of the Cayuá region include deer, *capiuara*, *anta* (*Tapirus americanus*, Briss.), *paca* (*Coelogenus paca*), *caitetú* (*Tajassu tajassu*, Lin.), armadilloes, coati, and various smaller mammals. Several kinds of jaguar (from Tupi-Guarani *djaguareté*) and a wild dog, the *guará* (*Canis jubatus*), also roam the woods. Among the birds are included parrots, parroqueets, toucans (Tupi-Guarani *tukã*), vultures, several sorts of heron, and the *crapónga* (Portuguese: *Ferreiro do mato*), a never-to-be-forgotten, dull-colored little

[30] The cold of the winter seemed to annoy our Brazilian colleagues, both from warm Rio, more than the considerable heat of the summer troubled us North Americans.

[31] One of these canes, the *taquapi* (*cana da Castilla*), gives its name to Taquapiri, the village studied.

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

enthusiasm for this type of flesh attributed to the Abipones by Dobrizhoffer.[43] The *coatí* (Tupi word), a little animal related to the raccoon, is killed for food, and monkeys may also have been used. Alligators were probably eaten, although only certain portions such as the tail. Rengger gives us the impression that the aboriginal Cayuá lived at least half from hunting,[44] and this estimate may not be greatly excessive.

A number of birds were killed for food, and toucans, parrots, and parroqueets served both for food and feathers. Parroqueets and sometimes parrots were tamed for pets, and such birds are also today to be found walking about the roofs of some half a dozen houses at Taquapiri. The ostrich-like emu which runs in the open *campo* of the Cayuá region was probably eaten formerly, as it is today, but it is not known whether the eggs were also eaten. Small birds of this species were captured and kept about the settlement to be eaten or for their eggs (?), though it is a moot question whether this keeping of semi-domesticated emu antedates the introduction of the European practice of keeping chickens. Certain other birds were eaten such as the *tapena* (*gavião-tesoura*), but the flesh of others was restricted to the older people, those who had grandchildren; it would make a younger person lazy or cause other undesirable effects. The owl was one such bird.[45]

The bow and arrow was one of the most important weapons of the chase, being employed against most larger and faster game, but special, blunt arrows for birds were also made. Clubs appear to have been used in certain kinds of hunting as well as in war and in personal disputes; in hunting, clubs were used principally against smaller and slower animals. The pellet bow is said not to be aboriginal, but in any case, was early used against birds which perch within its range.

In the matter of fishing, the Cayuá do not seem to have made the use of this source of food that the coastal Tupi did. Métraux comments that "the Cainguá are the only Tupi-Guarani who are so poor in fishing methods; not only do they not possess nets, but they do not shoot fish with the bow and arrow like the majority of Indians of South America."[46] While our information may suffer from insufficient or faulty reporting, it seems likely that Métraux's general impression is correct—at least judging from the present. It would be less safe to say, however, that the Cayuá have always been so poor in fishing practices. At the time of the European entry the Cayuá are practically unreported and may have been better off than now in respect of fishing. In the second place, the retreat of the Cayuá to their present territory, as they sought to avoid contact with the Europeans, confined some of them to an area where fishing is often impracticable because of the lack of fish. Ambrosetti, for ex-

[43] Dobrizhoffer, 1822, pp. 253 ff. [44] Rengger, 1835, pp. 125–126.
[45] Ambrosetti, 1894, p. 107. [46] Métraux, 1928, p. 92.

3: Watson E-4,5 (1943) 1952 SM4 Guarani SM4

Cayuá, and diadems, headbands, armbands, and feather collarpieces are mentioned.[68] It may also be supposed that the cotton or *caraguatá* belts, which are now so commonly used and prized by the Cayuá, were also formerly known. Métraux comments, in connection with the use of cotton and *caraguatá* as weaving materials, that the Cayuá are the only Tupi-Guarani tribe to use indifferently cotton and other vegetable fibers for weaving.[69]

The Cayuá loom was the simple upright frame, with vertical posts planted in the ground. The top horizontal piece was laid in forks in the uprights, and the lower horizontal piece was tied to the uprights at the distance required. The warp was usually composed of a single continuous or knotted piece of yarn passed around and around the horizontal loom pieces. No comb or bat was used, apparently, and the woof was put through the warp by hand. The product of the Cayuá loom was a creditable article, nevertheless, and simple dyeing was practiced with several plant colors available. Women were, as they now are, the weavers of the Cayuá.[70]

Fishing lines, and cords and ropes for heavier purposes, were twisted from various vegetable fibers. Some of the ropes were strong enough to hold large animals when these were caught in nooses made from them. Since very early times the Cayuá have used metal obtained from European needles or other sources for fishhooks, so it is difficult to say what the aboriginal article may have been.

Cayuá tools and weapons included the bow and arrow, already mentioned. The bow was round in cross-section, and the arrows were two-feathered. Métraux mentions triple feathering of arrows for the Cayua,[71] but no other suggestion of this has been encountered, and it is not present in modern arrows. Clubs were formerly used by the Cayuá. Notched axes of stone and knives of bamboo are indicated,[72] but it is not known what form of aboriginal hoe or hoe-like implement was used, if any. The digging stick, or *sarakwá*, was the primary agricultural implement aboriginally, and possibly the only one; it is still in use today, not only by the Cayuá but by local Neo-Brazilians.

Cayuá men wore the long lip-stick or *tembetá* ("lip-stone"), which in their case was customarily made of the translucent resin of a certain tree. This ornament and symbol of initiation and a man's status is still in use among some Cayuá, although modern examples appear to be shorter on the average than some of the extremely long ones reported for the past—up to thirty and more centimeters. Face painting for women and children is indicated for the

[68] Métraux, 1928, p. 150. [69] *Ibid.*, p. 232.

[70] The weaving of cotton was one of the household industries of Guarani women of which the Jesuits have made considerable mention in connection with the economic organization of the missions. Some of this production was apparently sold on the outside, and the priests seem to have made much effort to inculcate the industry in their female wards.

[71] Métraux, 1928, p. 75. [72] *Ibid.*, pp. 98-99.

3:Watson . E-4,5 (1943) 1952 SM4 Guarani SM4

*177 243 [173] are consistent to a certain degree with their contention. They say that the gods do not approve when large quantities of flint corn are planted and smaller quantities of the flour type, which is a divine gift. In spite of going this far, however, it is quite obvious that Cayuá now do sometimes plant more *tupi'* than *monoti'*, intending the greater harvest largely for sale. Cutler says, "The flour types appear to be the older form."[126] It is possible, therefore, that the Cayuá have grafted onto some aboriginal distinction between an older and supernaturally sanctioned flour corn (*monoti'*) and a more recent flint type (*tupi'*) the modern rationalization that the latter is white-introduced. The present trading association of hard corn may also have had some influence. In any event, it is clear that some few plants have been introduced to Cayuá agriculture by acculturation and that the aboriginal production ratios between one crop and another have been somewhat changed as a result of white influence.

*177 *178 224 226 Hunting and fishing have changed less than agriculture but a few acculturational features are to be noted. In fishing, white-introduced metal hooks are used for angling. Machetes are now often used when hunting with dogs; clubs have presumably given way to machetes in this and have disappeared altogether. Firearms are known, and a very few Cayuá possess them.[127] The bow and arrow is the missile weapon used by the largest number, and it does not seem to have suffered basically, either as to variety of arrow points or as to the knowledge of its use, from acculturational change.

*177 *178 222 412 415 Technologically, gathering has been largely unaffected and also probably has been little influenced by acculturational factors as to its importance in the total economy. In honey-gathering the machete and axe have provided some advantage over any conceivable aboriginal method. These metal implements are used to cut open the trees or stumps where the wild bees make their nests. Kerosene cans and *aguardente* (Brazilian alcoholic drink made of cane juice) bottles are now also found convenient for catching and storing the honey.

224 226 433 Although apparently little affected by acculturation as to technology, the non-agricultural forms of food production are now completely subsidiary. In some respects hunting and fishing theoretically may now even be dispensable. Practically every able-bodied Cayuá man (and woman, within the limits of her status) is an agriculturist. But many men do very little hunting or fishing. Even the motives for these lesser activities are now somewhat special and include the desire for variation of activity and for relief from the largely vege-

[126] *Ibid.*

[411] [648] [127] In 1943 only one person at Taquapiri had a firearm usable for hunting, an ancient Belgian shotgun, for which he sometimes bought powder and shot and loaded his own shells. A story was current among the Cayuá at that time that "the Government" had issued an order for all firearms to be taken from the Indians. Apparently certain local whites had "cooperated" in this, taking the arms for themselves.

3:Watson E-4,5 (1943) 1952 SM4 Guarani SM4

*177 182 648 22 the presence of many more people in the region, principally whites, who have more efficient hunting techniques. The whites also graze considerable numbers of cattle. Inevitably the ecological balance has shifted to the disfavor of the wild animals. Hunting has become less possible because there is less to hunt. Precisely what the presence of domesticated grazing animals in large numbers may have meant to the prospects of plant gathering, on the other hand, is not quite certain. In a region like the intermontane area of North America gathering, rather than hunting, was of primary importance, and the wild plants gathered were such as to be accessible and edible to grazing animals. The outcome of the introduction of livestock in that instance was both predictable and serious for the aborigines. But many of the wild plants gathered by the Cayuá are tree-growing fruits; many lower growing varieties are plants of the forest where cattle are not so apt to graze. It may consequently be doubted that cattle have had a great deal to do with any decrease in plant gathering activities of the Cayuá.[146]

*177 182 241 22 Broadly and indirectly significant in the declining importance of hunting and fishing (and gathering?) has been the increase in scale of agriculture, (II. A. a.). These two large changes apparently stand in a fairly close inverse relationship to each other. As hunting and fishing decreased, agriculture increased, and to a certain extent one result can therefore be said to have been a cause of the other, though of course we are dealing here with no "closed" causal system. Had there been no feasible alternative to the dependence upon hunting and fishing, such as agriculture, it may be doubted that they would as readily have given way before acculturational forces operating against them—or the present economic situation of the Cayuá might not have been such a relatively well adjusted one. In this sense, then, factors ultimately favorable to agriculture have indirectly contributed to the deterioration of non-agricultural food technologies; and conversely, factors unfavorable to hunting, fishing, and possibly gathering, have indirectly contributed to the modern importance of agriculture to the Cayuá.[147]

*177 182 241 412 II. A. c. "Greater present technological efficiency and productivity of the individual worker in agriculture. It is possible not only for more agricultural

[146] The cattle, and in a few cases swine, present something of a problem to the Cayuá agriculter, however. Those living near open country where cattle graze must make the trails to their *kaáxed* obscure and difficult and must build gates or other barricades. Otherwise the cattle may invade the plantations and cause large scale depredations, as certain wild animals always have done. The latter, however, may be trapped and killed whereas the cattle of the Neo-Brazilians may not.

[147] An instance in which tl.s has not been wholly true, however, is that of the introduction of metal implements. The machete has developed into one of the most commonly employed hunting weapons for certain small game such as armadilloes, substituting for the club, reported by some authorities as in use by the aboriginal Cayuá. At the same time time, of course, the machete has been a notable factor in enhancing larger scale agriculture.

[411]

5: Métraux E-4 (no date) 1948 SM4 Guarani SM4

dictator, Francia, ordered the destruction of the five missions south of the Paraná River. The 15 missions between the Paraná and Uruguay Rivers were abandoned during the war of 1816–18. The *Guaraní* who were not slaughtered settled in small villages, often near the ancient missions. In 1848 the dictator of Paraguay, Carlos Antonio Lopez, suppressed Bucareli's regime and forced the 6,000 *Guaraní* who still occupied missions to live in ordinary villages like the remainder of the Paraguayan population. The last vestiges of the Jesuit system disappeared after that date.

The Jesuit missions of Paraguay have been the subject of considerable controversy concerning their alleged communistic organization.

CULTURE

SUBSISTENCE ACTIVITIES

The early *Guaraní* seem to have been proficient horticulturists, perhaps superior to their modern descendants, the *Caingud*, who are said to be unable to subsist entirely on the output of their small fields. Like the *Tupinamba*, the *Guaraní* supplemented their diet with all kinds of wild fruits, and with game and fish.

Farming.—The whole community, among both ancient and modern *Guaraní*, cooperated in clearing a large field by the slash-and-burn method in a thick forest and then subdivided it into family plots. Planting and sowing were regulated by the course of the Pleiades. The main agricultural tool was the digging stick. After five or six years of cultivation fields were considered exhausted and were abandoned.

Most plants typical of the Tropics, except cayenne pepper, were raised by the *Guaraní* and are still grown by their descendants, the *Caingud* and the Paraguayan Mestizos. Manioc, mainly the sweet species, and maize are the staples. The *Caingud* cultivate manioc, maize (5 varieties), several varieties of sweet potatoes, beans, mangara (*Xanthosoma* sp.), a tuber called carahu (*Dioscorea* sp.), a leguminosea called mbacucu, peanuts, pumpkins, bananas, papayas, and watermelons. They also grow an herb (*Nissolia* sp.) for curing serpent bites, and two shrubs (*Rhamanidium* sp., and *Coix lacryma-jobi*), the seeds of which serve as beads. The *Pañ'* and *Chiripá* raise tacuapi reeds, or caña de Castilla (*Arundo donax*), for their arrow shafts. The *Caingud* are very fond of sugarcane, which is for them a delicacy.

Gathering wild foods.—The *Guaraní* of the southern Brazilian plateau consumed great quantities of pine nuts (*Araucaria brasiliensis*), which are abundant in that region.

The modern *Caingud* subsist far more than did their ancestors on wild plants, especially pindo palms (*Cocos romansoffiana*). This tree not only provides them leaves for making baskets, but also with vitamin-rich terminal shoots, with juicy fruits, oily nuts, and pith which the Indians

5: Métraux E-4 (no date] 1948 SM4 Guarani SM4

influence. The southernmost *Guaraní*, who lived in a harsh climate, followed the example of the *Charrua* and wore skin cloaks. In some *Caingud* groups, men wear a loincloth (hence the name *Chiripá*); in others they pass a piece of cloth between the legs and tuck it under a belt of human hair or fibers (hence the name, *Baticola*, "crupper"). Today cotton ponchos are sometimes worn by men.

Ornaments.—The distinctive lip ornament of ancient and modern *Guaraní* is a long T-shaped stick made of jatahy rosin; labrets of stone or bone were exceptional.[2a] Women hang triangular shell pendants from their ears. In the 16th century, men wore huge shell-disk necklaces, which have often been discovered in archeological sites. A few privileged individuals suspended on their chest pendants of silver or copper plates which had reached Paraguay from Perú.

At ceremonies, modern *Caingud* men wear feather wreaths, cotton sashes fringed with feathers, or seed necklaces with feather tassels. Pairs of these necklaces are crossed over the chest. Children's and women's necklaces are strung with pyramidal wooden beads, wooden or bone pendants carved into human or animal forms, seeds, small gourds, fish vertebrae, pendants made of toucan skin, and other objects.

Feather cloaks, formerly worn by famous chiefs, are no longer seen, but feather bracelets and diadems are still used by shamans or participants in religious ceremonies. On some headdresses, feathers were mounted on a woven frontlet, a technique suggesting Andean influence. Feather garlands were sometimes tied on top of the head in the form of rudimentary bonnets. The *Mbyá* wear bracelets, garters, and anklets of human hair. Belts of hair are worn only by men. Finger rings of palm fruits or iguana tails seem now to have become fashionable.

The circular tonsure of the ancient *Guaraní*, still used by some *Caingud* groups, did not extend to the forehead, as among the *Tupinamba*, but was similar to that of Franciscan monks.

Painting.—The use of urucú for body paint is widespread, but that of genipa seems to be limited to the Brazilian *Caingud*. Other groups substitute for it the juices of several plants or a mixture of charcoal and honey or wax. Traditional facial designs are dots and stripes, sometimes applied with bamboo stamps.

The ancient *Itatin* rubbed ashes from bones of birds of prey or swift animals into cuts made in their skin to improve their dexterity in archery.

TRANSPORTATION

Boats.—The ancient literature rarely mentions dugout canoes though they must have been common on the Paraguay and Paraná Rivers. The Paraguayan *Caingud* live on streams that are unsuited to boats and consequently make only a few dugouts or bamboo rafts, mainly for crossing

[2a] Today labrets have fallen into disuse.

5: Métraux E-4 (no date) 1948 SM4 Guarani SM4

501 [171] rivers. They propel these craft with poles. The *Cayuá* of Brazil, who reside near larger streams, are good boatmen and travel a great deal in large dugouts, 8 to 12 feet (2.5 to 3.5 m.) long.

482 [285] [177] [178] **Carrying devices.**—Goods are carried in cylindrical or rectangular twilled baskets, reinforced with a wooden frame. *Paĩ'* carrying baskets are relatively extensible and are made of intertwined pindo leaves, the midribs strengthening the whole structure. Carrying nets made of bark strips were clearly introduced with the maté industry. The *Guaraní* skin bag is certainly older than the net and appears to be an article that originated locally or was borrowed from tribes to the south.

482 854 Babies are ordinarily carried in a sling, straddling their mothers' hips, but they may be transported in baskets or in skin bags.

MANUFACTURES

285 [824] [531] **Basketry.**—The *Guaraní* weave temporary baskets of the pinnae of pindo palms, the midrib serving to reinforce the rim. More permanent containers are made of twilled fabrics of tacuarembo strands. They are ornamented with black, geometrical motifs.

283 [824] **Spinning and weaving.**—Thread is made of cotton carded with a bow, or of *Bromelia*, nettle (*Urera grandifolia*), and palm (*Acrocomia totai*) fibers.

286 [283] [531] [386] [824] [118] [177] Cotton is spun with a drop spindle and woven on a vertical loom with a circular warp. Cloth is generally white with alternate brown and black stripes, dyed with the bark of *Peltophorum dubium* and *Trichilia catigua*. The technique of darning weft strands through warp elements attached to a vertical loom, though it has been observed in modern times, was probably an early practice abandoned when true weaving became general, probably through *Arawak* influence.

323 178 **Pottery.**—*Guaraní* ceramics are known through archeological finds in São Paulo, Rio Grande do Sul, near Asunción in the Argentine territory of Misiones, and on the island of Martín García. The largest specimens are funeral urns, which also served as beer containers. Small dishes and bowls have a white interior slip which bears sigmoid figures, curves, triangles, mazes, and "grecques." The large jars and ordinary ware have continuous rows of thumbnail or other impressions over their entire surface. The *Caingud*, who have practically given up pottery, make only a ware that is decadent in quality and shape. Bowls with a flaring base ("compotera" types) may perhaps be a survival of a pre-Columbian type.

415 **Leather work.**—The *Caingud* carry their small possessions in skin bags.

•411 824 **Weapons.**—*Caingud* bows are made of palm wood, guayaihwi (*Patagonula americana*), or ihvira payú, ihvira pepé (*Holocalyx balansae*). They are 6 to 8 feet (2 to 2.5 m.) long, circular or oval in cross section, and entirely or partially wrapped with guembé bark (*Philodendron* sp.)

5: Métraux E-4 (no date] 1948 SM4 Guarani SM4

or covered with a basketry sheath in the center. A small bulge at each end made of wrapped bark strips prevents the fiber bowstring from slipping. Archers wear wrist guards of human hair or of cotton (*Chiripá*). The main types of arrowheads found in the tropical area are used by the *Caingud:* Lanceolate taquara heads; tapering sticks, plain or barbed on one or both sides; and conical wooden plugs for stunning birds.

The war arrows of the ancient *Guaraní* were often tipped with human bones.

The arrow shafts are made either of the native tacuati reed (*Merostachys argyronema*) or more commonly of the imported tacuapi, or caña de Castilla (*Arundo donax*).

The feathering is of the Eastern Brazilian, or arched type. The pellet-bow is widely used by young *Caingud* boys to shoot birds or small rodents.[8] The missiles are small clay pellets.

Caingud clubs are either swordlike with cutting edges or plain sticks with a square cross section and a basketry sheath around the handle. Sometimes they taper into a point. The *Guaraní* were acquainted with the sling but found little use for it in their forested habitat.

The *Guaraní* warriors whom the Spaniards fought in the 16th century carried shields, often decorated with feathers. This defensive weapon has not been reported since the 17th century.

SOCIAL AND POLITICAL ORGANIZATION

Among the ancient *Guaraní*, the social unit was probably the large extended patrilineal family—perhaps the sib. Sometimes as many as 60 families lived under the same roof. Each community had a chief, but the actual power was often in the hands of a shaman. Many of the great *Guaraní* leaders who resisted the Spaniards in the 17th century were shamans endowed with divine prestige. Some ancient chiefs extended their influence over a fairly wide area. A general council of chiefs and adult men decided community and district affairs and elected war chiefs who commanded obedience during expeditions.

All *Apapocuva-Guaraní* chiefs, for at least a hundred years, have been shamans who have reached the highest rank within their profession. Like the ancient chiefs, they have been credited with supernatural power and with miracles performed on behalf of their people.

A *Guaraní* chief was succeeded by his eldest son unless there was some stronger member of the family. However, an eloquent man distinguished in warfare might become chief. Persons dissatisfied with their headman might secede and start a new settlement under another leader. Chiefs of *Caingud* communities in Paraguay have a Spanish title and carry a stick as symbol of their office. Fifty years ago, a few villages were administered as in Jesuit times, by a cacique mayor and cacique menor, a sargento, and

[8] For a good description of the Guaraní pellet-bow, see Ambrosetti, 1895, 2:67.

/309 cont./

174 If they were under the authority of a powerful chief, the expedition
169 gained in cohesion and numbers. In no case must one see in
721 these migrations a national movement carried out according to
619 a pre-established plan and involving the whole group of Guarani tribes simultaneously. These Indians, like all in tropical America, have never had a very clear consciousness of their unity, and, even in the face of a common danger, the idea never occurred to them that similarity of language and culture might create a bond of solidarity among them. All the more reason why this individualism of the group or tribe was to manifest itself with particular acuity when a simple pillaging expedition was afoot.

174 The columns of Guarani warriors who penetrated into
721 the Chaco bush doubtless included only a few women. The
169 men advanced, walking in single file, bows and arrows in hand,
22 while several girls followed behind with baskets full of pro-
262 visions on their backs. If these ran out, the men hunted along
[411] the way or fished in the rivers, such as the Pilcomayo if they
[482] were following its course. When game or fish were lacking, they gathered fruit; palm cabbage, algarroba pods, and chañar fruit were there, which provided a substantial diet, but it was still necessary to choose the season when they were
[825] ripe, in order to travel. They watched the flight of bees in order to find honey, and they did not scorn certain insects or
167 their larvae. The problem of water was the only serious one;
721 it was solved by collecting what the caraguatá leaves held at
174 the base; they sucked the root of certain tubers (the /310/
271 sipóy (1) of the northern Chaco) and quenched their thirst at
824
[139]

1. This is a Bignoniaceae or Begoniaceae (?). This plant has the appearance of a liana whose bulb is full of fresh water. (Diccionario Chiriguano-Español y Español-Chiriguano, p. 192).

the small ponds encountered on the way.

1:Dobrizhoffer M-5 (ca. 1760) 1822
SI4 Abipon SI4

Chiquito SF9
Vilela SI 4
Guaraui SM4

C 224 411 262 like the Guaranies, who fear not to feed on oxen stung to death by serpents, rejecting that part only which has been infected by the animal's tooth. Father Gumilla relates that the savages of the Orinoco prepare a most fatal poison to dip their arrows in.

A 411 237 The feathers which expedite the flight of the arrows are taken from the wings of crows, so that when the Abipones went out to shoot these birds we guessed that war was at hand. Each feather is tied on both sides, to the extremity of the reed, by a fibre of very slender thread. The V 237 411 Vilelas excite the admiration of all Paraguay by their skill in archery. They dexterously fasten the feathers to the arrow with a glue made from [381] the bladder of the fish vagre, inserting the point very lightly into the reed; an artifice which renders their arrows extremely dangerous, because whilst the reed is extracted the point remains sticking in the flesh. The Guaranies, less curious in these matters, apply the feathers of par- G 411 rots, or other birds, to their arrows. When more than four hundred shoot at a mark, at the same moment, and they go to gather them up, each knows his own by the colour of the feathers. Every nation, in short, has a peculiar A 411 fashion in forming bows and arrows. The shorter are more dangerous than the longer ones, inasmuch as they are more difficult to be seen and avoided; but the longer have the advantage